SMARAUPDATE

The Quarterly Newsletter of the Department of Conservation—Office of Mine Reclamation

Learning the Ropes of Remediation

When the Department of Conservation's Abandoned Mine Lands Unit (AMLU) was created in 1997, its main purpose was to inventory and catalog abandoned mines in California. In 2002, however, the AMLU was directed to start remediating hazards at these sites. In a very short period of time, the AMLU staff learned how to propose, plan, coordinate, perform, and report on remediation projects at abandoned mine sites. Every project posed new challenges, and much was learned in overcoming these challenges to successfully complete a project.



Many remediation projects begin with the AMLU bringing a hazardous mine to the attention of the associated land management agency. There are often several potential contacts at any given agency, and experience has shown that the choice of contact person can make or break a project. For this reason, a project leader should perform research within his or her professional network to select a contact person who will be a positive force in the project. It would be ideal to find a person with the time, funding, and desire to complete a project, with a track record of successful projects behind them, and who has a positive relationship with their own management to lessen the chance that the project will be impeded at a higher level. Once an appropriate contact has been identified, the AMLU staff will demonstrate how they can help the agency solve the shared problem of a hazardous abandoned mine. Typically, the AMLU will offer partial funding or the services of a specialized (Continued on page 3)

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How Can the SMARA Update Work for You?

From almost any standpoint, the Surface Mining and Reclamation Act (SMARA) is a complex body of law. Whether you're a mine operator trying to meet your compliance requirements or a local planner trying to fulfill your lead agency responsibilities, there can often be more questions than answers.

One of the Office of Mine Reclamation's (OMR) main goals is to provide technical assistance to lead agencies and surface mining operators. This is usually accomplished on a case-by-case basis, helping individual operators or lead agency staff understand what is required under SMARA and what alternatives may be available to them. This approach – resolving questions as they come up – doesn't go far enough. A question for one operator or lead agency is probably a question for many others as well. We, at OMR, need to ensure that answers to technical questions are more widely communicated.

Focused workshops are a way to do this. Beginning in January 2006, OMR plans to provide workshops covering such topics as: reclamation planning, financial assurance cost estimating, inspections, exemptions and compliance, revegetation, and more. Details about workshop schedules and locations will be provided in the coming months.

Another way for OMR to provide broader technical assistance is through its SMARA Update quarterly newsletter. The Spring 2005 issue of the SMARA Update contained a reader survey. Responses to the survey have been mostly positive and have given us a few tips on ways to improve the newsletter. The "Legislation Update" on the back of this quarter's newsletter, for example, comes as a result of feedback from the survey.

Your input is needed to make this newsletter a more effective communication tool. If you have general or technical questions about SMARA that would be suitable for a newsletter article, we'd like to hear them. If you have ideas for improving the SMARA Update, wish to submit an article for publication, or have general comments about how OMR is doing, please fill out the short electronic survey form at: http://www.consrv.ca.gov/OMR/smara/newsletter/survey.htm. Your responses will help us make the SMARA Update – and OMR – work better for you.

State Mining and Geology Board Names New Executive Officer

Stephen M. Testa has been appointed as the State Mining and Geology Board's Executive Officer, effective August 2, 2005. Replacing John Parrish, who was recently named State Geologist, Mr. Testa brings to his new role a wealth of experience and expertise in the fields of engineering geology, environmental geology, geologic hazards, mine reclamation, waste management, and water quality.

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Field visits to discover and assess abandoned mine hazards are the first step of a remediation.

contractor to complete the construction work. If the contact at the land management agency agrees to cooperate on the project, it should then be determined what other approvals are required for the project to be completed. A typical project will require at least informal approvals from an agency biologist, archaeologist/ historian, field/district manager, contracts office, and sometimes the maintenance manager. It is important (unless impractical) to arrange a site visit that includes this entire group of individuals to discuss the practicalities of the proposed mine closure, in an effort to achieve a consensus on the type of remediation and the likely timeline of events. If persons cannot attend, a brief discussion of their concerns or showing them pictures of the site may have to suffice. However attractive a plan might seem, if it lacks input from key parties, unexpected problems may jeopardize completion of the project.

Obtaining proper environmental clearances is an important step in every remediation project. Either partner can perform this work, although the AMLU typically relies on professionals from

the land management agency to perform any required studies and to complete the environmental documents. It frequently happens that these individuals have unique, specialized, local knowledge and experience that others may not possess. This knowledge is a great help when

composing an accurate and complete CEQA or NEPA document. Regardless of who completes the documentation, all involved parties should obtain copies and keep them on file.

Once a consensus is achieved and clearances are obtained, the project leader must decide who will do the actual on-site work. Sometimes there is a choice between using an agency's maintenance staff or a specialized contractor to do the work. Using maintenance staff for simple closures can be less expensive, easier to schedule, and easier to pay for because no contracts are needed. The downside is that these staff may lack the specialized knowledge required for mine closures as well as the knowledge and equipment



A group visit to the site can address the concerns of individuals and allow the planning and approval process to run more smoothly.

(Continued on next page)

needed to work safely on an abandoned mine site. A specialized contractor will bring experience and safety training in working on mine sites and at remote construction sites. A contractor will also have its own insurance, the skills and knowledge to engineer non-standard closures, and special contacts enabling it to mobilize a helicopter, mule team, etc., if the project demands it.

The downside of hiring a specialized contractor includes higher costs for simple jobs and potential difficulties making contact because they are often working at remote sites. Contracting itself can also be difficult and time consuming, depending on the land management agency involved.

Getting the contractor or maintenance staff involved early, even as early as the preliminary field visit, will enable them to provide input to the decision making process and prepare them as the timetable and closure method become clear. It's best to disclose all of the limiting factors of the closure (biological, temporal, maintenance, etc.) as soon as possible. This allows the contractor to incorporate them into the design from the start rather than needing to resolve conflicts later. All required approvals should be in place long before the work is to begin; never plan for things to get done at the last minute. On a complex mine remediation project, it is important to be flexible and realize that unexpected expenses and delays can occur and that some materials can fluctuate in both price and availability.



Maintenance or other agency staff can be an inexpensive labor source for less complex remediation projects.

Professional contractors can design and build complex closures and install them in remote locations.

Follow-through is needed at the end of each project to make sure that all deliverables are received and invoices can be paid.

These strategies have proven effective at expediting remediations and increasing the chance of project success. The AMLU continues to learn and improve its remediation processes and anticipates that, with more experience, it will achieve even greater success in the remediation of abandoned mines.

Jonathan Mistchenko Environmental Scientist

Parrish Leaves the SMGB – But not the DOC

Dr. John Parrish had himself quite a spring, owing to the fact that he knows a thing or two about geology. Still, it's what he doesn't know, he'll tell you, that makes his work interesting. "One thing I've found out after 33 years as a practicing geologist is that science will always keep you humble," said Parrish, longtime Executive Officer of the State Mining and Geology Board. "Just when you get comfortable enough to think you've figured out how the universe is put together, Mother Nature throws you the exception to the rule." To illustrate his point, Parrish recites a quote from the philosopher Will Durant: "Civilization exists by consent of geology, subject to change without notice."

Change was the operative word for Parrish in April, when he was appointed California's State Geologist, filling the position vacated by James Davis, who retired after leading the California Geological Survey for more than 25 years. "It's the crown jewel," Parrish said. "I look at it as the best state geologist job in the nation. California is the most geologically diverse and seismically active state in the nation, and we went and put a huge population on top of it. So heading up CGS means heading up the premier geological survey in the country and it's a lot to live up to."

The appointment came on the heels of another testament to Par-



rish's standing in the earth sciences community. In late March, he was named the 2005 recipient of a prestigious public service award given each year by the American Institute of Professional Geologists. The AIPG is an 8,000-member organization dedicated to professionalism and ethics in geology, and Parrish has been a member for 25 years.

In nominating Parrish for the John T. Galey, Sr., Memorial Public Service Award, Steve Testa noted his 11-year run as Executive Officer of the SMGB, during which Parrish "was on the front lines in formulating legislation and public policy in California on behalf (continued on next page)

of the geosciences, the professional community, and the public." A nomination from Testa carries some weight, given that he is past president of the AIPG, current president of the American Geological Society, and a consulting geologist in California. "To be recognized by your peers in professional geology on a national scale, I feel very honored and humbled by it," Parrish said.

Prior to his tenure with the State, Parrish spent 20 years in the private sector with the oil and gas industry, both as a field geologist and as a manager engaged in a wide variety of onshore and offshore exploration and production projects. His time with Tenneco Oil Company, beginning in 1973, had him working in such diverse locations as Colorado, Texas, Oklahoma, the United Kingdom and, finally, California. In 1990, he took a job in Bakersfield with Santa Fe Energy Resources, Inc., then moved in 1993 to his first public-sector position as Executive Officer for the State Board of Registration for Geologists and Geophysicists, part of the Department of Consumer Affairs. A year later, he took the Executive Officer position with the SMGB. "It was not so much hands-on geology at that point, but very much a management job," Parrish said. "That doesn't mean you're not exposed to geological issues, because the job keeps you very active. I've been in the field looking at landslides, earthquakes, and abandoned mines. I read all sorts of geological and geophysical reports, analyzed them and presented them to the board, and made recommendations to the board so they could formulate policy."

Becoming the State Geologist is an opportunity Parrish has had in the back of his mind for some time. "It's always something I envisioned as a possibility since coming into state service," he said. "If you want to do things and be active in your career, then looking ahead and imagining what might happen is normal and something a lot of people would want to do."

Parrish became interested in geology as a sophomore at California's University of Redlands, where he earned his bachelor's degree in the subject. The educational trail soon led to a master's in geology at the University of Houston, a master's of business administration through the California State University system, and, finally, a doctorate in geology at the University of Wales in the UK. His thesis: a marine research project using shipboard data-gathering techniques to investigate sediments, bed forms and shelly fauna over 10,000 square miles of the western Irish Sea. Parrish is also a licensed pilot, having flown single-engine Cessnas for some 26 years. He gave it up about a year ago when he began teaching his teenage son to drive. "That was much more scary than flying, and there's just a limit to the number of thrills one wants to experience at one time," he said. Nevertheless, the curiosity and sense of adventure that drove him to educational advancement and landed him in a cockpit still motivate him to this day. "It's something that I find so interesting – to learn something new about the Earth and my surroundings," he said. "The wonders never cease to amaze me."

Don Drysdale Public Affairs Office

Governor Appoints New State Mining and Geology Board Members

On March 31, 2005, Governor Arnold Schwarzenegger announced the appointment of three new members to the State Mining and Geology Board (SMBG) -- Erin Gardner, Seena Hoose, and Edie Harmon (who has since resigned for personal reasons). Robert Tepel, who had served on the Board previously, was reappointed, as was Julian C. Isham, who was reappointed for a second term. All of the appointments require Senate confirmation.

The SMGB operates within the Department of Conservation and has certain autonomous responsibilities and obligations. The SMGB serves as a regulatory, policy, and appeals body representing the state's interest in geology, geologic and seismologic hazards, conservation of mineral resources, and reclamation of lands following surface mining activities.

Erin Garner, 46, of Monte Sereno, has served on the City of Monte Sereno City Council and as Mayor since 2000. Garner is a senior geologist and program manager for URS Corporation. Previously, he was senior environmental consultant and regulatory specialist for Delta Environmental Consultants, Inc.

> **Seena Hoose**, 64, of Cupertino, is an engineering geologist for the Santa Clara Valley Water District. Previously,

she served as associate geologist for the San Francisco Bay Regional Water Quality Control Board and research geologist for the United States Geological Survey. She is a registered geologist, certified engineering geologist, and certified hydrogeologist. Hoose is a member of the Geological Society of America, Association for Women Geoscientists, and Association of Engineering Geologists.

Robert Tepel, 67, of San Jose, now retired, was an engineering geologist for the Santa Clara Valley Water District for 22 years. Prior to that, he was an engineering geologist for the Department of Water Resources, Division of Design and Construction. Tepel is a member of the Association of Engineering Geobgists, United States Society on Dams, Geological Society of America, International Association of Engineering Geology and the Environment, and the Earthquake Engineering Research Institute.





Julian Isham, 57, of Antioch, has over 31 years of experience in mining, engineering geology, hydrogeologic investigations, groundwater resource development, groundwater contamination studies, and waste management. He is senior technical consultant with Shaw Environmental and Infrastructure and previously served as senior geologist with Bechtel Group. Isham is a registered professional geologist, certified engineering geologist, and certified hydrogeologist.

July-September

SUMMER 2005

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The SMARA Update is a quarterly publication of:

Department of Conservation
Office of Mine Reclamation
801 K Street, MS 09-06
Sacramento, CA 95814
(916) 323-9198



Our web site address is http://www.conservation.ca.gov/omr.

The purpose of this publication is to impart the latest reclamation tips as well as changes in SMARA-related legislation or the interpretation of existing statutes by court decisions.

Interim Director: Debbie Sareeram
Assistant Director for OMR: Douglas Craig
Newsletter Editor: Lynne Taylor
Design Layout: Sam Hayashi



Legislation Update

SB 668—This bill would amend the Surface Mining and Reclamation Act (SMARA) by requiring lead agencies to address Department comments regarding the adequacy of reclamation plans and financial assurances. Additionally, lead agencies would be required to provide at least 30 days' notice of their intent to approve reclamation plans and financial assurances. SB 668 would allow the Department to file a writ of mandate if the lead agency failed to follow the provisions of SMARA by approving inadequate reclamation plans or financial assurances. The bill would allow the Department to enjoin any mining operation from operating until it reaches compliance with SMARA. **STATUS**—This bill was amended on June 30, 2005. It passed the Senate on May 31, 2005, and is currently in the Assembly Appropriations Committee with a hearing to be set at a later date.

SB 1110— The Department is pursuing some administrative changes to improve SMARA that are included in this Omnibus Bill: (1) fees collected from gold and silver production could be used to remediate pre-SMARA mines; (2) a reporting requirement related to abandoned mines would be repealed; (3) "local agency" would be defined as it relates to the AB3098 List; (4) and mining operations would be prohibited from selling materials to a contractor unless the operator is in compliance with SMARA. **STATUS**—This bill was amended on June 13, 2005. It passed the Senate on May 16, 2005, and is currently on the suspense file in the Assembly Appropriations Committee with a hearing to be set at a later date.

SB 71—This is the annual Resources Budget Trailer Bill. The section affecting the Department would remove the trigger on federal land royalties for mining activities conducted in the state. Currently, the Department receives \$2 million for the implementation of SMARA if the State receives \$20 million or more in royalties. If the amount falls below \$20 million, the Department receives \$1.1 million. This trigger would be deleted, and the Department would receive the first \$2 million each year to implement SMARA. **STATUS**—This bill was signed by the Governor on July 19, 2005 as Chapter 81, Statutes of 2005.

OMR - Ensuring mined lands are returned to a beneficial end use after mining.